6.5 Budgeting

Goals for the Day

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Definitions

Definitions

- A **budget** is a financial plan for your income over a defined period of time.
  - Planning ahead to be ready for the unexpected, rather than being reactive to what happens in the now.
- **Net Income (take home pay)** is equal to total, or gross, income minus taxes.
  - *Net Income = Gross Income – Taxes*
- **Disposable income** is the money left over after taxes and expenses.
  - *Disposable income = Net income – Expenses*

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Steps to Creating a Budget

Steps to creating a budget

- Big picture, we need to know the following to create a budget:
  - What is your monthly net income (after tax income)? What are your necessary expenses? How much disposable income is left?
- Steps to create a budget:
  1. Calculate monthly income
  2. Calculate monthly expenses
  3. Subtract expenses from income
  4. Allocate any remaining funds or make adjustments

Steps to creating a budget

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Step 1 – Calculate monthly income

- Example: Hannah makes $45,000 per year and expects to pay approximately 20% for all taxes.

a) How much of her income can Hannah expect to pay in taxes?

$$Taxes = Salary \times Tax\ rate \quad = 45{,}000 \times \frac{20}{100} \quad = \$9000$$

b) What is Hannah's net income?

$$Net\ Income = Salary - Taxes \quad = 45{,}000 - 9{,}000 \quad = \$36{,}000$$

c) What is Hannah's monthly take-home pay?

$$Monthly\ Take\ Home\ Pay = \frac{Net\ income}{12} \quad = \frac{36{,}000}{12} \quad = \$3{,}000$$

Steps to creating a budget

<u>Step 2 – Calculate monthly expenses</u>

- Example: Using the information provided in the given table, determine how much monthly income would be necessary to budget for

a) loan fees over the 9-month academic year.

$$\frac{Loan\ fees}{9} = \frac{172}{9} = \$19.11$$

b) all the expenses of over the 9-month academic year.

$$\frac{\sum(all\ expenses)}{9} = \frac{19{,}157 + 10{,}235 + \cdots + 172}{9} = \frac{34{,}786}{9} = \$3{,}865.11$$

Estimated Cost of Local College Next Academic Year	
Budget Category	**On-Campus Student**
University Fees	$19,157
Room & Board	$10,235
Books & Supplies	$1806
Transportation	$730
Personal	$1623
Health Insurance	$1063
Loan Fees	$172

Steps to creating a budget

Step 3 – Subtract expenses from income income

- Example: Monica has a yearly salary of \$28,700. Her employer withholds \$3052 in state and federal taxes and \$2180 in FICA taxes throughout the year. She has the following monthly costs: transportation is \$220, cell phone bill is \$50, student loans require \$180 in repayment, and rent is \$350. She is using the average monthly costs for each of the following in order to gain an idea of other monthly expenses: utilities are \$260, internet is \$105, health insurance is \$299, and groceries are \$210.

a) What is Monica's monthly net pay amount?

Monthly

$$Net\ Income = Salary - Taxes = 28{,}700 - (3{,}052 + 2{,}180) = \$23{,}468 \rightarrow = \frac{23{,}468}{12} = \$1{,}955.67$$

b) How much money is left each month for discretionary spending after all necessities are accounted for?

$$Disposable\ income = Monthly\ Take\ Home\ Pay - Expenses = 1{,}955.67 - (220 + 50 + \cdots + 210)$$

$$= \$281.67$$

Steps to creating a budget

Step 4 – Allocate remaining funds or make adjustments

- Example: Determine the approximate monthly cost of spending $16.64 on takeout at least 3 times a week. (Assume four weeks in a month.)

$$Monthly\ cost = Expense \times \#\ times \times \#\ weeks \quad = 16.64 \times 3 \times 4 = \$198.68$$

Budgeting Rule

- Ultimately, a sound budget will cover all of your needs, some of your wants, and put you on a path of saving for emergencies and the future.
- One such general recommendation is the **50/30/20 budgeting rule** is to allow:
  - 50% of your net income for necessities,
  - no more than 30% for wants
  - and at least 20% for savings and paying down debt.

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Examples

Example #1

The Lees have a combined net income of $7026 a month. Find the amount they should allot for each category if they aim to follow the 50/30/20 rule for their budget. Round your answers to the nearest cent, if necessary.

Necessities: $3,513
Wants: $2,107.80
Savings: $1,405.20

Example #2

Dwayne is self-employed. Based on last year, his projected state and federal taxes for this year will be approximately $10,200. Determine how much Dwayne should put aside…

a) each month in order to have enough to pay his estimated quarterly taxes?

b) each quarter in order to have enough to pay his estimated quarterly taxes?

Monthly = $850
Quarterly = $2,550